Serial No. 09/973,911

Amdt. dated February 27, 2004

Reply to Office Action of October 14, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Docket No. MRE-0034

**Listing of Claims:** 

Claims 1-6 (Canceled)

7. (Previously Presented) An apparatus for automatic loading of sleeves on a device

testing apparatus, wherein each sleeve is configured to hold one or more devices therein,

comprising:

a loading plate configured to receive a plurality of sleeves;

a carrier positioned adjacent to a lower edge of the loading plate, wherein the

carrier is configured to receive a plurality of sleeves provided by the loading plate, and to

transport the plurality of sleeves to a transfer area at an upper portion of the carrier;

a guide proximate to the transfer area, wherein the guide is configured to

sequentially align and guide the plurality of sleeves transported by the carrier to a loading area

of the device testing apparatus; and

a drive configured to drive the carrier.

5

Reply to Office Action of October 14, 2003

- 8. (Previously Presented) The apparatus of claim 7, further comprising a pair of supports, wherein one of the supports is disposed at each side of the loading plate.
- 9. (Previously Presented) The apparatus of claim 8, wherein the pair of supports comprises a plurality of vertically extending plates.
- 10. (Currently Amended) The apparatus of claim 8, wherein the guide comprises <u>at</u> <u>least one</u> guide <u>rails rail</u> fitted to an upper portion of <u>each support of</u> the <u>pair of</u> supports.
  - 11. (Previously Presented) The apparatus of claim 8, wherein the carrier comprises:
- a first shaft coupled to a first part of the supports, wherein the first shaft is rotatably coupled to the drive;
  - a pair of first pulleys, fixed to opposite ends of the first shaft;
  - a second shaft rotatably coupled to a second portion of the supports;
  - a pair of second pulleys fixed to opposite ends of the second shaft;
- at least one conveyor belt mounted on at least one of the first pulleys and at least one of the second pulleys and having at least one end positioned in close proximity to a lower edge of the loading plate; and

Reply to Office Action of October 14, 2003

a plurality of steps formed on outside surfaces of the at least one conveyor belt at predetermined intervals, wherein each step is configured to lift and to transport a sleeve provided at a lower edge of the loading plate.

- 12. (Previously Presented) The apparatus of claim 11, wherein the drive comprises a motor.
- 13. (Previously Presented) The apparatus of claim 11, further comprising a return device configured to remove one or more excess sleeves from a step on the at least one conveyer belt when a plurality of sleeves are loaded on and transported by a single step, and to leave only one sleeve on the step.
- 14. (Previously Presented) The apparatus of claim 13, wherein the return device is configured to return excess sleeves to the loading plate.
- 15. (Previously Presented) The apparatus of claim 14, wherein the return device is configured to push excess sleeves off of the steps on the at least one conveyer belt.

Reply to Office Action of October 14, 2003

16. (Previously Presented) The apparatus of claim 13, wherein the return device comprises at least one return pulley rotatably mounted on one of the supports, wherein the return pulley has a projection formed at an outside circumference and wherein the projection is configured to cause excess sleeves to fall off a step when a plurality of sleeves are loaded on a step of the at least one conveyor belt.

17. (Previously Presented) The apparatus of claim 16, further comprising:

at least one drive pulley mounted on one or more of the first shaft and the second shaft; and

a drive belt mounted on the at least one return pulley and the at least one drive pulley such that the at least one return pulley rotates with the first and second shafts.

- 18. (Previously Presented) The apparatus of claim 16, wherein the return pulley is configured to be rotated by the drive.
- 19. (Previously Presented) The apparatus of claim 7, wherein the loading plate is sloped at a predetermined angle with respect to the carrier.

Reply to Office Action of October 14, 2003

- 20. (Previously Presented) The apparatus of claim 7, wherein the carrier is further configured to transfer the plurality of sleeves to the loading area one at a time.
- 21. (Previously Presented) An apparatus for automatic loading of sleeves on a device testing apparatus, wherein each sleeve is configured to hold one or more devices therein, comprising:
  - a sloped loading plate configured to receive a plurality of sleeves;
- a carrier fitted adjacent a lower edge of the sloped loading plate, wherein the carrier is configured to receive a plurality of sleeves provided by the sloped loading plate, and to transport the plurality of sleeves to a transfer area at an upper portion of the carrier;
- a guide proximate to the transfer area, wherein the guide is configured to sequentially align and guide the plurality of sleeves transported by the carrier to a loading area of the device testing apparatus;
  - a drive configured to drive the carrier; and
- a return device configured to return one or more sleeves from the carrier to the sloped loading plate when the number of sleeves transported by the carrier exceeds a capacity of the guide.

Reply to Office Action of October 14, 2003

- 22. (Previously Presented) The apparatus of claim 21, further comprising a pair of supports, wherein the supports are disposed at opposite sides of the loading plate.
- 23. (Previously Presented) The apparatus of claim 22, wherein the pair of supports comprises a pair of vertically extending plates.
- 24. (Previously Presented) The apparatus of claim 22, wherein the guide comprises guide rails fitted to an upper portion of the supports.
- 25. (Previously Presented) The apparatus of claim 22, wherein the carrier comprises:

  a drive shaft rotatably coupled to first end portions of the supports, wherein one
  end of the drive shaft is rotatably coupled to the drive;
  - a pair of first pulleys fixedly installed on opposite ends of the drive shaft;
  - a follower shaft rotatably coupled to a second end portion of the supports;
  - a pair of second pulleys fixedly installed at opposite ends of the follower shaft;
  - a pair of conveyor belts, wherein each conveyer belt is mounted on a first pulley

and a second pulley, wherein a plurality of steps are formed on outside surfaces of the conveyor

belts, and wherein the plurality of steps are configured to lift and to transport the plurality of

sleeves from the sloped loading plate to the transfer area.

Reply to Office Action of October 14, 2003

- 26. (Previously Presented) The apparatus of claim 25, wherein the plurality of steps are formed at predetermined intervals along a length of each conveyor belt.
- 27. (Previously Presented) The apparatus of claim 25, wherein the return device is configured to push one or more sleeves carried on a pair of steps of the conveyer belts off the steps such that only a single sleeve remains on the steps.
- 28. (Previously Presented) The apparatus of claim 27, wherein the return device comprises a rotating pulley with a projection that is configured to push one or more sleeves off the steps.
- 29. (Previously Presented) The apparatus of claim 25, wherein the return device comprises:
  - a third pulley fixedly installed to one of the drive shaft and the follower shaft;
  - a return pulley rotatably coupled to a middle portion of each support;
- a driving belt mounted on the return pulley and the third pulley such that the return pulley rotates with the drive shaft, wherein at least one projection is formed on an outer

circumferential surface of the return pulley, and wherein the projection is configured to allow

only one sleeve to be transported by each step.

Serial No. 09/973,911

Docket No. MRE-0034

Amdt. dated February 27, 2004

Reply to Office Action of October 14, 2003

30. (Previously Presented) The apparatus of claim 21, wherein the sloped loading plate is positioned at a predetermined angle with respect to the carrier so as to cause a plurality of sleeves loaded thereon to slide to the lower edge of the sloped loading plate adjacent to the carrier.

31. (Previously Presented) The apparatus of claim 21, wherein the carrier is further configured to transfer the plurality of sleeves to the loading area one at a time.